

REMARKS

The Applicants appreciate the thoroughness with which the subject application has been examined. By this amendment, changes have been made in the specification and certain claims, as set forth above, to overcome the Examiner's objection and rejections and more concisely claim and describe the present invention. Claims 1 - 15 remain in the application for reconsideration by the Examiner. The Examiner's allowance of all pending claims is earnestly solicited.

The Applicants have identified several typographical informalities in the specification and propose to correct them as indicated above in the marked-up specification paragraphs.

Claim 9 has been objected to as lacking a period. The Applicants have corrected the claim to overcome the objection.

Within the first claim set comprising claims 1 - 13, all claims 1 - 13 stand rejected under Section 103(a) as unpatentable over Bonomi (6,219,352) in view of Knuth, "The Art of Computing 2nd Edition."

To further distinguish the invention over the art of record, the Applicants have revised the first and the third paragraphs of independent claim 1 to, "forming a circularly linked list comprising a plurality of destination node entries each node entry having an associated address for receiving multicast data;" and "traversing the linked list for sending the multicast data to the destination nodes."

Bonomi discloses a technique for saving memory space (for example, see column 6, lines 1-5) by maintaining "only one copy of each multicast cell," "[i]nstead of copying a multicast cell several times for each output branch." A Bonomi cell comprises multicast data. His linked lists comprise logical queues that indicate whether a particular data cell is to be transmitted to a particular output branch. That is, each cell is stored in only one physical queue and the cells are retrieved for transmission to an output branch as determined by the linked list logical queue.

In Bonomi Figure 5, reference characters 510 and 520 represent a physical queue where the contents of locations 510A-510L link or point to another location within 510, and the contents of locations 520A-520L indicate a memory location where a data cell is stored.

The head pointer HP1, representing an output branch or cell destination, traverses the linked list of locations 510A/520A-510L/520L, according to the links in the physical queue 510, while contents of locations in a mask 530A-530L indicate whether the stored cell is to be transmitted to HP1. For example, the contents of mask location 530A indicate that the data cell identified by the contents of physical queue 520A is to be transmitted only on output branch 1, and not on output branch 2 (represented by head pointer HP2). The contents of the mask location 530H indicate that the data cell stored at a location indicated by the contents of 520H is to be transmitted to both output branches 1 and 2. See the description of Figure 5 as set forth beginning in column 12, line 64.

The Applicant's linked lists identify addresses for receiving multicast data; the list does not disclose or indicate a location of the multicast data itself.

The distinction between Bonomi and the Applicant's invention is further evident from Bonomi's Figure 2, in particular step 120 where "the output branches forming a multicast connection are determined. Such a determination is generally made according to the signaling schemes employed in communication backbone 150." See Bonomi column 7, beginning at line 56.

Thus Bonomi does not disclose identifying destination nodes for a multicast session as the Applicants claim. The Applicant's circularly linked list relates to address for receiving the multicast data, but Bonomi's linked list (circularly linked if the combination with Knuth is permitted) is not a list of addresses for receiving multicast data, but is a list of memory locations of data cells for transmission to addresses identified by destination pointers that point to the list.

The combination of Bonomi and Knuth cannot disclose the Applicant's invention if there is no disclosure in either reference of "identifying destination nodes of a multicast session in a network having a plurality of nodes." Knuth's circularly linked list cannot cure Bonomi's failure to disclose a method for identifying destination nodes, as the Applicants claim, by "forming a circularly linked list comprising a plurality of destination node entries each node entry having an associated address for receiving multicast data."

There is also no motivation set forth in either Bonomi or Knuth to support the combination. Further, the circularly linked lists of Knuth cannot be combined with Bonomi, who discloses a tail pointer TP1 (see Figure 5) that "identifies the storage location of the last

cell received on a connection,” and thus the location of the last cell to be transmitted. If Knuth’s circular list concept was applied to Bonomi, the linked list would proceed from the tail pointer location back to a head pointer, causing the cell stored at the head pointer location to be sent again to the destination indicated by the head pointer. The tail pointer would thus have no utility. Also, such a repeat transmission of the data cell would be undesirable as wasteful of signaling resources.

Claims 2-13 each further distinguish the invention as each defines a novel combination of additional features. It is therefore respectfully submitted that dependent claims 2 -13 depending from claim 1 are allowable over the cited art.

Independent claim 14 has been rejected under Section 103(a) as unpatentable over Bonomi in view of Knuth.

To further distinguish the invention over the art of record, the Applicants have revised independent claim 14. In particular, the first paragraph now claims, “forming a multicast group list comprising a circularly linked plurality of destination node entries, wherein each destination node entry includes link information and an associated address for receiving multicast data.” The fourth paragraph has been revised to, “traversing the list according to the link information for sending the multicast data to the destination nodes.”

The remarks set forth above supporting the Applicant’s contention that claim 1 is patentably distinct from the combination of Bonomi and Knuth also apply to the Applicant’s contention that claim 14 is patentably distinct from the cited art.

Bonomi discloses a “separate [logical] queue for each branch [output] of the multicast connection so that each branch can be served according to the specific service parameters it is set up with.” See column 3, lines 53-56. Assuming that the combination is permitted, Knuth adds the concept of a circularly linked list.

In contrast, the Applicants teach, as set forth in amended claim 14, “forming a multicast group list comprising a circularly linked plurality of destination node entries, wherein each destination node entry includes . . . an associated address for receiving multicast data.” It is therefore respectfully requested that amended claim 14 is patentably distinct from the cited art.

Independent claim 15 has been rejected under Section 103(a) as unpatentable over Bonomi in view of Knuth.

Claim 15 is patentably distinct from the cited art as the combination does not disclose “a circularly linked list comprising a plurality of destination node entries, wherein the contents of each destination node entry include an associated destination address and data transmission parameters.” As explained above, Bonomi’s list comprises memory locations of data cells to be transmitted to branches or outputs set forth in a logical queue comprising pointers to the list of memory locations. As the pointers point to list entries, the cells are sent (in accordance with a port mask table 530) to the destination indicated by the pointer.

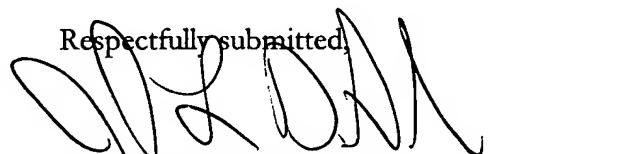
Claim 15 has been amended to correct an informality in the last paragraph of the claim.

The Applicants have attempted to comply with all of the points raised in the Office Action and it has been shown that all of the pending , i.e., claims 1 - 15, are now in condition for allowance. In view of the foregoing amendments and discussion, it is requested that all of the rejections be withdrawn and that the application be passed to issuance.

The Applicants hereby petition for an extension of time of one month under the provisions of 37 C.F.R. 1.136. A check in the amount of \$120.00 payable to the Director of the USPTO is enclosed in payment of the extension fee.

If a telephone conference will assist in clarifying or expediting this Preliminary Amendment, the Examiner is invited to contact the undersigned directly at the telephone number below.

Respectfully submitted,



John L. DeAngelis, Jr., Esquire
Reg. No. 30,622
Beusse Brownlee Wolter Mora & Maire, P.A.
390 N. Orange Ave., Suite 2500
Orlando, FL 32801
(407) 926-7710



CERTIFICATE OF MAILING

I HEREBY CERTIFY that the foregoing Amendment is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 8th day of October, 2005.

A handwritten signature in black ink, appearing to read "John L. DeAngelis".

John L. DeAngelis